



DEPARTMENT OF ENERGY

10 CFR Part 430

[EERE-2021-BT-TP-0023]

RIN 1904-AF18

Energy Conservation Program: Test Procedures for Cooking Products

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Notice of proposed rulemaking; extension of public comment period and notification of data availability (NODA).

SUMMARY: The U.S. Department of Energy (DOE) is extending the public comment period for the notice of proposed rulemaking (“NOPR”) that DOE published on November 4, 2021 regarding a proposal for a new test procedure for conventional cooking tops, a category of cooking products, that would replace the procedure that DOE withdrew on August 18, 2020. DOE is also publishing a NODA regarding the results of DOE's recently completed test program assessing the repeatability and reproducibility of the proposed test procedure. DOE is publishing the results of its testing and requests comment, data, and information regarding the results.

DATES: The comment period for the NOPR which published on November 4, 2021 (86 FR 60974), is extended. DOE will accept comments, data, and information regarding the NOPR and NODA on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: Interested persons are encouraged to submit comments using the Federal eRulemaking Portal at www.regulations.gov. Follow the instructions for submitting comments. Alternatively, interested persons may submit comments, identified by docket number EERE-2021-BT-TP-0023, by any of the following methods:

1. *Federal eRulemaking Portal*: www.regulations.gov. Follow the instructions for submitting comments.

2. *Email*: CookingProducts2021@ee.doe.gov. Include the docket number EERE-2021-BT-TP-0023 in the subject line of the message.

No telefacsimilies (“faxes”) will be accepted. For detailed instructions on submitting comments and additional information on this process, see section III of this document.

Although DOE has routinely accepted public comment submissions through a variety of mechanisms, including postal mail and hand delivery/courier, the Department has found it necessary to make temporary modifications to the comment submission process in light of the ongoing coronavirus 2019 (“COVID-19”) pandemic. DOE is currently suspending receipt of public comments via postal mail and hand delivery/courier. If a commenter finds that this change poses an undue hardship, please contact Appliance Standards Program staff at (202) 586-1445 to discuss the need for alternative arrangements. Once the COVID-19 pandemic health emergency is resolved, DOE anticipates resuming all of its regular options for public comment submission, including postal mail and hand delivery/courier.

Docket: The docket for this activity, which includes *Federal Register* notices, public meeting attendee lists and transcripts (if a public meeting is held), comments, and other supporting documents/materials, is available for review at www.regulations.gov. All documents in the docket are listed in the www.regulations.gov index. However, some documents listed in the index, such as those containing information that is exempt from public disclosure, may not be publicly available.

The docket web page can be found at www.regulations.gov/docket/EERE-2021-BT-TP-0023. The docket web page contains instructions on how to access all documents, including public comments, in the docket. See section III for information on how to submit comments through www.regulations.gov.

FOR FURTHER INFORMATION CONTACT: Dr. Stephanie Johnson, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office, EE-2J, 1000 Independence Avenue SW, Washington, DC 20585-0121. Telephone: (202) 287-1943. Email: ApplianceStandardsQuestions@ee.doe.gov.

Ms. Celia Sher, U.S. Department of Energy, Office of the General Counsel, GC-33, 1000 Independence Avenue SW., Washington, DC 20585-0121. Telephone: (202) 287-6122. Email: Celia.Sher@hq.doe.gov.

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I. Background

DOE originally established test procedures for cooking products in a final rule published in the *Federal Register* on May 10, 1978. 43 FR 20108, 20120–20128. In the years following, DOE amended the test procedure for conventional cooking tops on several occasions. Those amendments included the adoption of standby and off mode provisions in a final rule published on October 31, 2012. 77 FR 65942.

In a final rule published December 16, 2016 (“December 2016 Final Rule”), DOE amended 10 CFR part 430 to incorporate by reference, for use in the conventional cooking tops test procedure, the relevant sections of Committee for Electrotechnical Standardization Standard 60350–2:2013, “Household electric appliances—Part 2: Hobs—Method for measuring performance” (“EN 60350–2:2013”), which uses a water-heating test method to measure the energy consumption of electric cooking tops. 81 FR 91418. The December 2016 Final Rule also extended the water-heating test method specified in EN 60350–2:2013 to gas cooking tops. *Id.*

On August 18, 2020, DOE published a final rule (“August 2020 Final Rule”) withdrawing the test procedure for conventional cooking tops. 85 FR 50757. DOE initiated the rulemaking for the August 2020 Final Rule in response to a petition for rulemaking submitted by the Association of Home Appliance Manufacturers (“AHAM”), in which AHAM asserted that the then-current test procedure for gas cooking tops was not representative, and, for both gas and electric cooking tops, had such a high level of variation that it did not produce accurate results for certification and enforcement purposes and did not assist consumers in making purchasing decisions based on energy efficiency (“AHAM petition”). 85 FR 50757, 50760; *see also* 80 FR 17944 (Apr. 25, 2018).

DOE withdrew the test procedure for conventional cooking tops because testing conducted by DOE and outside parties using that test procedure yielded inconsistent results. 85 FR 50757, 50760. As described in the August 2020 Final Rule, DOE’s test data for electric cooking tops showed only small variations (within tests conducted at a single laboratory) while lab-to-lab test results submitted by AHAM showed high levels of variation for gas and electric cooking tops, indicating that the test may not have been reproducible across labs. *Id.* at 85 FR 50763. DOE was not able to identify the cause of variation. *Id.* DOE determined that the

inconsistency in test results indicated that the results were unreliable, and that it was unduly burdensome to retain the procedure and require cooking top tests be conducted using that test method without further study to resolve those inconsistencies. *Id.* at 85 FR 50760. In January 2020, DOE initiated a round robin test program to further investigate the water-heating approach and the issues raised in the AHAM petition.¹

DOE published a NOPR on November 4, 2021 (“November 2021 NOPR”) in which it presented results from the initial round robin test program and proposed to reestablish a test procedure for conventional cooking tops. 86 FR 60974. The proposed test procedure would adopt the latest version of the relevant industry standard² with modifications to adapt the test method to gas cooking tops, offer an optional method for burden reduction, normalize the energy use of each test cycle, include measurement of standby mode and off mode energy use, update certain test conditions, and provide certain clarifying language. *Id.*

The results of the initial round robin testing initiated in January 2020 were presented in Table III.1 and Table III.2 of the November 2021 NOPR. 86 FR 60974, 60979–60980. The results of this testing showed repeatability and reproducibility coefficients of variation (“COVs”) under 2 percent for electric cooking tops tested at certified laboratories. *Id.* at 86 FR 60980. In the November 2021 NOPR, DOE also observed that for gas cooking tops, the repeatability COVs were of 0.3 – 3.7 percent and the reproducibility COVs ranged from 4.0 to 8.9 percent. *Id.*

II. Summary of Additional Testing Performed by DOE

Following the August 2020 Final Rule, in May 2021, DOE initiated a second round robin test program in response to changes to electric cooking tops on the market and to evaluate

¹ This testing was conducted according to the cooking top test procedure, as published in December 2016.

² International Electrotechnical Commission (“IEC”) Standard 60350–2 (Edition 2.0 2017-08), “Household electric cooking appliances—Part 2: Hobs – Methods for measuring performance.”

potential variability in testing gas cooking tops. This NODA presents the results from the second round robin test program.

For the second round robin test program, DOE conducted two replications of the test procedure according to the test procedure proposed in the November 2021 NOPR, using the same three certified test laboratories as were used in the initial round robin testing, and using four out of the five gas cooking tops that were used during the initial round robin testing.³

DOE included one electric-coil cooking top that meets the most recent version of the relevant industry safety standard in its second round robin. In response to AHAM's petition, Whirlpool submitted comments regarding the frequency of heating element cycling, stating that the introduction of a "coil surface unit cooking oil ignition test" to the 16th edition of the Underwriters Laboratory ("UL") standard 858, "Household Electric Ranges Standard for Safety" ("UL 858") resulted in manufacturers making design changes to electric-coil cooking tops that increased cycling frequency over shorter durations in order to maintain a constant temperature. (Whirlpool, EERE-2018-BT-TP-0004, No. 20 at pp. 2–3)⁴ The 16th edition of UL 858 published on November 7, 2014. On June 18, 2015, UL issued a revision to UL 858 that added a new performance requirement for electric-coil cooking tops intended to address unattended cooking, the "Abnormal Operation – Coil Surface Unit Cooking Oil Ignition Test." This revision had an effective date of April 4, 2019. Because the electric-coil cooking top in DOE's initial round robin testing was purchased prior to that effective date, DOE could not be certain whether that test unit contained design features that would meet the performance specifications in the 2015 revision of UL 858. To address the lack of test data on electric-coil cooking tops that comply

³ Due to time constraints, Unit #11 in the test sample was not tested at Laboratory B, but was instead tested at Laboratory E, a non-certified test laboratory which has experience testing electric cooking tops.

⁴ The parenthetical reference provides a reference for information located in the docket of DOE's rulemaking regarding test procedures for conventional cooking tops. The references are arranged as follows: (commenter name, comment docket ID number, page of that document). (Docket No. EERE-2018-BT-TP-0004, which is maintained at www.regulations.gov/docket/EERE-2018-BT-TP-0004).

with the 2015 revision of the UL 858 safety standard, DOE included one electric-coil cooking top meeting the 2015 revision of UL 858 in its second round robin (labeled as Unit #11 in the test data).

To address the reproducibility concerns with the prior gas cooking top test results, DOE tested four gas cooking tops. As discussed in the November 2021 NOPR, several of the proposed test procedure provisions were intended to specifically reduce the testing variability for gas cooking tops.

The results from testing the electric cook tops and the gas cook tops are as follows. DOE observed that an electric-coil cooking top meeting the 2015 update of the UL 858 safety standard had repeatability COVs under 1 percent, and a reproducibility COV under 3 percent. DOE also observed that the repeatability COV for gas cooking tops decreased to values under 2 percent (compared to a maximum of 3.7 percent from the first round robin), and the reproducibility COV for gas cooking tops decreased to values largely under 4 percent, with a maximum of 5.3 percent (compared to a maximum of 8.9 percent from the first round robin).

DOE notes that the average annual energy use as measured under the test procedure proposed in the November 2021 NOPR differs substantively from the average annual energy use measured for a given cooking top in the initial round robin, due primarily to the update in the number of annual cooking top cycles from 214.F5 cycles per year for gas cooking tops in the test procedure as published in December 2016 to 418 cycles per year as proposed in the November 2021 NOPR.⁵ 86 FR 60974, 60994.

⁵ Other proposals in the November 2021 NOPR likely to impact annual energy use include the starting water temperature (15 degrees Celsius (“°C”) in the procedure as published in December 2016, and 25 °C in the proposed test procedure), the normalization of the per-cycle energy use to account for the final water temperature, and the update test vessel selection criteria.

As also discussed in the November 2021 NOPR, DOE proposed a target power density for the optional potential simmering setting pre-selection test for gas cooking tops of 4.0 British thermal units per hour per square centimeter. *Id.* at 86 FR 60990. This proposal was based on the estimated power density for gas cooking top tests conducted as part of the initial round robin. As part of the second round robin testing on gas cooking tops, DOE has collected additional data on the measured power density of the minimum-above-threshold input setting and the maximum-below-threshold input setting for all four tested gas cooking tops, which may be compared to the proposed target power density.

The test data are available in the docket for this proposed rulemaking at:
www.regulations.gov/document/EERE-2021-BT-TP-0023-0004.

III. Extension of the Comment Period

For the November 2021 NOPR, comments were originally due no later than January 3, 2022. In light of this NODA, DOE has determined that it is appropriate to extend the comment period to allow additional time for interested parties to prepare and submit comments.

Therefore, DOE is extending the comment period and will accept comments, data, and information on the November 2021 NOPR and this NODA on and before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

Submitting comments via www.regulations.gov. The *www.regulations.gov* web page will require you to provide your name and contact information. Your contact information will be viewable to DOE Building Technologies staff only. Your contact information will not be publicly viewable except for your first and last names, organization name (if any), and submitter representative name (if any). If your comment is not processed properly because of technical

difficulties, DOE will use this information to contact you. If DOE cannot read your comment due to technical difficulties and cannot contact you for clarification, DOE may not be able to consider your comment.

However, your contact information will be publicly viewable if you include it in the comment or in any documents attached to your comment. Any information that you do not want to be publicly viewable should not be included in your comment, nor in any document attached to your comment. Persons viewing comments will see only first and last names, organization names, correspondence containing comments, and any documents submitted with the comments.

Do not submit to *www.regulations.gov* information for which disclosure is restricted by statute, such as trade secrets and commercial or financial information (hereinafter referred to as Confidential Business Information (“CBI”)). Comments submitted through *www.regulations.gov* cannot be claimed as CBI. Comments received through the website will waive any CBI claims for the information submitted. For information on submitting CBI, see the Confidential Business Information section.

DOE processes submissions made through *www.regulations.gov* before posting. Normally, comments will be posted within a few days of being submitted. However, if large volumes of comments are being processed simultaneously, your comment may not be viewable for up to several weeks. Please keep the comment tracking number that *www.regulations.gov* provides after you have successfully uploaded your comment.

Submitting comments via email. Comments and documents submitted via email also will be posted to *www.regulations.gov*. If you do not want your personal contact information to be publicly viewable, do not include it in your comment or any accompanying documents. Instead,

provide your contact information on a cover letter. Include your first and last names, email address, telephone number, and optional mailing address. The cover letter will not be publicly viewable as long as it does not include any comments.

Include contact information each time you submit comments, data, documents, and other information to DOE. No faxes will be accepted.

Comments, data, and other information submitted to DOE electronically should be provided in PDF (preferred), Microsoft Word or Excel, WordPerfect, or text (ASCII) file format. Provide documents that are not secured, written in English and free of any defects or viruses. Documents should not contain special characters or any form of encryption and, if possible, they should carry the electronic signature of the author.

Campaign form letters. Please submit campaign form letters by the originating organization in batches of between 50 to 500 form letters per PDF or as one form letter with a list of supporters' names compiled into one or more PDFs. This reduces comment processing and posting time.

Confidential Business Information. According to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email two well-marked copies: one copy of the document marked confidential including all the information believed to be confidential, and one copy of the document marked non-confidential with the information believed to be confidential deleted. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

It is DOE's policy that all comments may be included in the public docket, without change and as received, including any personal information provided in the comments (except information deemed to be exempt from public disclosure).

Signing Authority

This document of the Department of Energy was signed on December 9, 2021, by Kelly J. Speakes-Backman, Principal Deputy Assistant Secretary for Energy Efficiency and Renewable Energy, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the *Federal Register*.

Signed in Washington, D.C., on December 10, 2021

Treena V. Garrett
Federal Register Liaison Officer,
U.S. Department of Energy

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